

Box with Multi-Pole SPD for Photovoltaic Systems

ProTec Box T1 5Y RG

Class I • Class II • Type 1 • Type 2



Location of Use: Photovoltaic Systems
 Mode of Protection: (+)-PE, (-)-PE, (+)-(-)
 IEC/EN Category: Class I+II, Type 1+2
 Housing: IP 65 Enclosure
 Compliance: EN 61643-31:2019
 IEC 61643-31:2018

Technical Data**ProTec Box T1-xxxxPV-5Y(-S)(-RG)****1100****1500****Electrical**

Maximum Continuous Operating Voltage (DC)	U_{OPV}	1100V	1500V
Nominal Discharge Current (8/20 μ s)	I_n	20 kA	20 kA
Total Discharge Current (8/20 μ s)	I_{total}	50 kA	50 kA
Maximum Discharge Current (8/20 μ s)	I_{max}	40 kA	50 kA
Impulse Discharge Current (10/350 μ s)	I_{imp}	6.25 kA	6.25 kA
Total Discharge Current (10/350 μ s)	I_{total}	12.5 kA	12.5 kA
Specific Energy	W/R	9.77 kJ/ Ω	9.77 kJ/ Ω
Charge	Q	3.125 As	3.125 As
Voltage Protection Level	U_p	4400V	5200V
Rated Load Current [Rubber Grommet]	I_L	45 A	45 A
Response Time	t_A	< 25 ns	< 25 ns
Short Circuit Current Rating	I_{SCPV}	11 kA	30 kA
Number of Strings per MPPT		2	

Mechanical & Environmental

Temperature Range	T_a	-40 °F to +185 °F [-40 °C to +85 °C]	
Permissible Humidity	RH	5%...95%	
Altitude		13123 ft [4000 m]	
Type of Cable Entry		Cable Gland / Rubber Grommet	
Wire Insulation Outer Diameter	(min)	.15" [4 mm] (stranded, flexible)	
	(max)	.31" [8 mm] (stranded, flexible)	
Conductor Cross Section [Cable Gland]	(min)	24 AWG [0.2 mm ²] (stranded, flexible)	
	(max)	5 AWG [16 mm ²] (stranded, flexible)	
2 Conductors with Same Cross Section and Twin Ferrule [Rubber Grommet]	(min)	20 AWG [0.5 mm ²] (stranded, flexible)	
	(max)	9 AWG [6 mm ²] (stranded, flexible)	
Degree of Protection		IP 65	
Thermal Protection		Yes	
Operating State / Fault Indication		Green Flag / Not Green Flag	
Housing Material		Polycarbonate with Semi-transparent	
Mounting		Wall - Indoor/Outdoor	

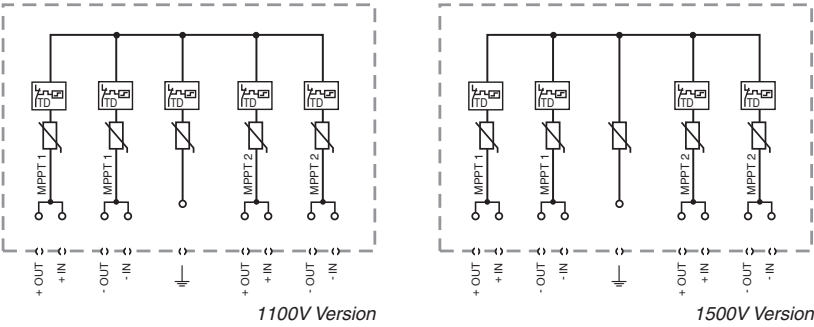
Internal Configuration

Legend

+/-, -/+ Terminal for +/-, -/+ Conductor

⏏ Terminal for PE/G Conductor

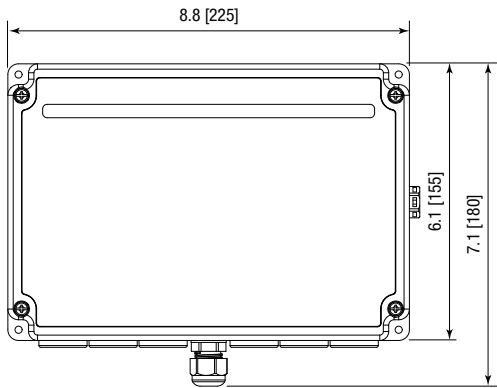
TD Thermal Disconnect



ProTec Box T1-xxxxPV-5Y(-S)(-RG)

Order Information			
Order Code		1100	1500
ProTec Box T1-xxxxPV-5Y-RG (Rubber Grommet)		515 936	-
ProTec Box T1-xxxxPV-5Y-S-RG (Rubber Grommet)		-	515 937

Dimensions & Packaging



Complete Unit			
ProTec Box T1-xxxxPV-5Y(-S)(-RG)		1100	1500
Single Unit Weight	pounds [grams]	3.289 [1492]	3.739 [1696]
Packaging Dimensions (H x W x L)		15.1 x 17.7 x 21.6" [385 x 450 x 550 mm]	
Minimum Package Quantity		1 Unit	